

Color Harmony Rooms

Optimized Color Inspection Systems for Automotive Interior and Exterior Coatings and Trim



Color harmony is the use of colors, shades, materials, and textures to achieve a pleasing visual experience. Good color harmony stirs emotions and plays a significant role in consumers' buying decisions.

In the automotive industry, paints and coatings are becoming more complex, parts are being manufactured from a wider range of materials, and final products consist of components from a worldwide supply chain. Incoming parts and final products need to be inspected for color harmony, fit and finish in a lighting environment that is compliant with industry standards and can simulate the environment in which consumers will view the product.



Color Harmony Room Features

GTI will work with you to design a color harmony room that will meet your specific requirements. Your customized room will consist of GTI GLE and/or GLL luminaires mounted to the walls, ceiling, and on portable stands. Features include:

- Compliance with ASTM D1729 and SAE J361
- Single, dual, or multi-source luminaires
- Multiple angles of illumination
- Custom configurations to fit any size room
- Wireless remote control
- GTI ColorGuard II Tracks light source usage and indicates when to relamp
- Automatic light source sequencing
- GTI's proprietary D65 ColorMatcher lamps
- Access to GTI's color and lighting experts

GTI's Approach

- Working with you, GTI will conceptualize, develop specifications, and design the right color harmony room for your products, facility, and inspection needs.
- If needed, GTI will develop a scaled prototype room at our facility to ensure that the intensity and angles of illumination meet specifications.
- After installation, GTI can provide an onsite audit to ensure the color harmony room meets industry standards.
- GTI provides scheduled relamping programs to help you maintain consistent and accurate viewing conditions.

Above: A custom color harmony room featuring multi-source GLE luminaires and wireless remote control

Left: A portable inspection station with three angles of illumination and multiple light levels

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Superior Lighting Where Color Is a Critical Aspect of Your Business

Five Keys to Accurate Color Matching and Inspection

Color Quality—D65 light is a daylight simulation that has a color temperature of 6500K. Not all 6500K lamps are equal. To maintain compliance with ASTM D1729 and SAE J361 use GTI proprietary CMlite D65 daylight fluorescent lamps.

Light Intensity — Consistent light intensity is critical for evaluations of color quality and appearance and assures accurate color communication across the supply chain.

Evenness—Even light intensity across a surface assures correct interpretation of color. Evenness is ensured by properly engineering the lighting environment based on the specific automotive application.

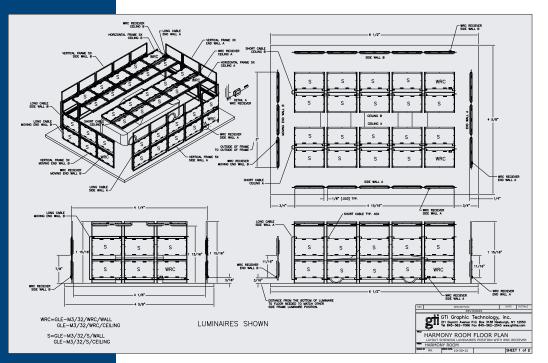
Surround — A properly designed viewing area includes a surround and backing that are neutral and matte. GTI recommends Munsell N7/ neutral gray low gloss paint.

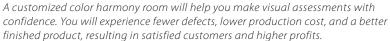
Geometry—Perceived color discrepancies can be caused by different angles of illumination and viewing. Altering the viewing or illuminating angles will help detect these gonio-apparent differences.

Light Sources

The use of multiple light sources assures effective visual appraisal of metamerism and color match assessment. Available sources include:

- Daylight D65, D75, or D50
- Store Light—CWF or TL84
- Home Light—Incandescent A
- Ultraviolet—UVA BLB
- Other Choices SPX35, TL83, Horizon, or LED







All GTI products are designed and manufactured at our corporate headquarters in Newburgh, NY. GTI light measurements are NIST traceable.



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